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Westerman et al.(10) **Pub. No.: US 2009/0021489 A1**(43) **Pub. Date: Jan. 22, 2009**(54) **IDENTIFYING CONTACTS ON A TOUCH SURFACE**(76) Inventors: **Wayne Westerman**, San Francisco, CA (US); **John G. Elias**, Townsend, DE (US)

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(57) **ABSTRACT**

Apparatus and methods are disclosed for simultaneously tracking multiple finger and palm contacts as hands approach, touch, and slide across a proximity-sensing, multi-touch surface. Identification and classification of intuitive hand configurations and motions enables unprecedented integration of typing, resting, pointing, scrolling, 3D manipulation, and handwriting into a versatile, ergonomic computer input device.

